Technical corrections Review#2:

P2 L4: authors (they are 2!) –
AR: corrected

P2 L5: give detailed information about scale of time and area, see also repetition of this fact at page 6 line 5-8 –
AR: over longer geologic time periods (added "several Ma") for large areas (added "thousands of square kilometers").

P5 L16: During the glacial periods …
AR: corrected

P5 L23: distinct thickness : If it is distinct give accurate amount of thickness!
AR: changed to "different but considerable thickness".

P6 L16: .. considered as highly evident ..
AR: changed

P6 L17: . However, for the period ..
AR: corrected

P6 L18: .. for the initial topography
AR: corrected

P 6 L19: .. covering the bedrock, is the results of various natural processes ….
AR: changed

P6 L20: Solid bedrock is weakened by ..
AR: corrected

P6 L23: "discrete periods": Please give detailed information about time and naming of the periods
AR: I changed "Pleistocene" to late Pleistocene and added this information: "during the Middle and Upper Weichselian when aeolian sediments like loess were accumulated and reworked with autochthonous material (Frechen 2003)."

P6 L24 .. material are evident, in particular aeolian sediments like loess.
AR: changed

P6 L25: There are several multi-material-layers covering the solid rock ..
AR: I replaced "a" with "several"

P6 L26: "coat" change to "cover"
AR. Changed

P6 L30: .. not available for all …
AR: changed

P7 L3: .. it became ..

AR: corrected

P7 L5-6: Give literature or internet source for high resolution data
AR: I changed "Palaeo-climate modeling data of world records" to "Palaeo climate modeling of global data" and cited Kageyama, 2016

P7 L10: "calibrated"; Calibration would mean more computing than only constantly increasing the values. I would prefer to say "adapted" or "transformed".
AR: decided to use „adapted"

P7 L17: What is the required temporal resolution of the model? Please give information.
AR: It is conducted with a time step of 100 years at the moment. But it is a flexible parameter for users with different data for climate input.

P7 L19: What is the amount of the temperature value increase for the study area? Please inform.
AR: The curve was adapted to meet the annual mean temperature value of 8 degrees at the testsite "Ebergoetzen"

P7 L20: Revise sentence, because you begin talking about the temperature signal, which has nothing to do with the spatial resolution of the precipitation data.
AR: "and precipitation" was deleted

P9 L14: Erase point behind (2008)
AR: OK

P9 L20: Explain the parameters T, Tmin, Tmax, is it daily, annual, seasonal temperature? In the formula you use an "a" and in the text an "α" for the buffering parameter.
AR: added "T is the Mean Annual Average Temperature (MAAT) in °C, Tmax is the maximum MAAT in °C, Tmin is the minimum MAAT in °C within the time step", the a in the formula was replaced by "α"

P12 L15: Describe the constitution of the initial regolith cover in detail. How it was designed?
AR: Here I describe only the initial depth of the regolith cover. The user can decide for a general value (5cm, 10cm,…) or include a grid with spatially distributed depth values. I replaced "definition" with "depth".

P13 L14-17: This sentence about the three variants of modelling should appear in the beginning of the paragraph because it needs to be explained first that the result shown in figure 7 is computed without aeolian deposits.
AR: I shifted the sentences so that the paragraphs starts with a description of the variants.

P13 L14: .. sediment cover (7), ..
AR: not sure what is meant…

P15 L14: I think you used the variation 3 of the generated model data for validation. This information is missing and need to be given here.
AR: You're right. The missing information was added!

P17 L6, L10, L13: Space between number an m, cm or points
AR: Corrected!

Figure 1c): Black lines in the map need to be explained in the legend, where is the mm, middle Muschelkalk?

AR I completed the legend of figure 1c). The Middle Muschelkalk fell victim to the simplification of the Geological data when the transformation to the geological model was conducted. There were only very small areas anyway.

Figure 2: .. (dashed line) (after Alley, 2000) and the …

AR: corrected

Figure 3a): Give more space for the coordinates in the map frame. The geographic coordinates in the map should be placed more systematically.

AR: I decided to produce the map without map frame with coordinates. Instead the map now has a scale bar and systematic annotation of the graticule.

Figure 3b) and c) are inverted in the legend, the x-axes as time scale should be divided into 4 seasons

AR: Corrected. I introduced a new partitioning of the x axis.

Figures 11, 13: Please indicate the statistical background in the diagrams, for example maximum and minimum values, standard deviation along x and y-axes.

AR: I produced the figures 11 and 13 again with arrows that indicate the standard deviation for both the augering points from LBEG and the modeling results. Min / max values seemed to me not very meaningful in this case.